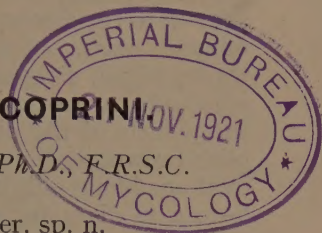


THREE NEW BRITISH COPRINI

By Professor A. H. R. Buller, D.Sc., Ph.D., F.R.S.C.



1. *Coprinus echinosporus* Buller, sp. n.

Pileus 15–18 mm. high before expansion, white, then grey, and finally dirty yellowish-brown, oval, then conico-campanulate, becoming flattened, about 3 cm. broad, and finally revolute and radially splitting along the lines of the longest gills, at first clothed with short dense down which then breaks up into small, delicate, thin, fugacious tufts or scales consisting of slender branched cells, $80-150 \times 5-10\mu$. Stipe 9 cm. \times 3 mm. at base, white, slightly attenuated upwards, straight or flexuose, firm, adpressedly hairy. Gills blackish at maturity, adnexed, very thin, very slightly wedge-shaped, autodigesting on the edges. Flesh brownish-yellow, brownish at the apex of the pileus, becoming finally dirty ochraceous. Spores black in the mass, very dark and opaque under the microscope, finely warted or echinulate, oval, more or less pip-shaped, truncate at the apex, $9-11 \times 5-7\mu$, with an apical germ-pore through which a transparent membrane often protrudes; basidia of three lengths, surrounded by 3–4 paraphyses. Cystidia abundant, rounded at both ends, generally parallel-sided, rarely globose, $70-95 \times 23-30\mu$, varying up to 105μ in length and $45-57\mu$ in diameter. Habitat, on sticks dredged from a pool at Kew, October, 1911.

The most striking character of this species lies in the coarsely verrucose spores which are truncate at the apex; but, in general aspect, it resembles *Coprinus lagopus* Fr. (= *C. fimetarius* and *C. cinereus* of authors).

Pileo 15–18 mm. alto, ovali, albo-cinerascente, dein 3 cm. lato, conico-campanulato, sordide fusco-lutescente, postea revoluta radiatimque fisso, farina tenui consperso. Stipite albo, sursum attenuato, firmo, adpresse pubescente. Lamellis adnexus, atris; sporis amygdaliformibus, verruculosus vel echinulatus, apice truncatis, $9-11 \times 5-7\mu$; cystidiis copiosis, ellipticis.

2. *Coprinus bisporus* Lange.

Lange, Studies in the Agarics of Denmark, pt. II, *Coprinus*, Dansk Bot. Ark., bind 2, no. 3, p. 50. Synonym: *Coprinus bisporiger* Buller in Trans. Brit. Myc. Soc., 1911, p. 350.

Pileus 5-12 mm. high and broad, pallid or ochraceous, then greyish-hyaline, ovate-conical, then revolute and radially sulcate up to the disc which remains prominent, covered with erect, minute hairs, $45-120 \times 12-24\mu$. Stipe 3-8 cm. \times 1-3 mm., white, equal, strigose at the base. Gills white, then blackish, adnexed, narrow, 2 mm. wide. Flesh white, ochraceous under the pellicle of the pileus, thin except at the disc. Spores purplish-brown in the mass, dark brown under the microscope, oval or oblong elliptical, $12-14 \times 6-7\mu$; basidia broadly ovate, 8-10 μ in diameter, with 2 sterigmata and 2 spores. Cystidia inflated, ovate, $80-90 \times 45-55\mu$. Habitat, wood and dung, at Kew, Aug.-Oct., 1911 and 1916.

The British specimens found at Kew, on which this description is based, had invariably two spores only on each basidium and never three or four. By this character, combined with the deeply sulcate pileus with its prominent disc, the strigose base of the stem, and the ovate cystidia, this species can be readily distinguished.

3. *Coprinus curtus* Kalchbr.

Lange, Studies in the Agarics of Denmark, pt. II, *Coprinus*, Dansk Bot. Ark., bind 2, no. 3, p. 45, t. 1, fig. h. Synonym: *Coprinus plicatiloides* Buller, in Researches on Fungi, Vol. I, 1909, p. 69.

Pileus 3-8 mm. high when young, 0.5-1.5 cm. broad when expanded and flattened, foxy-red or rufescent to tan colour at first, becoming grey to dark grey, at first oval to cylindrical or elliptical, then expanded and flattened with a strongly depressed disc, splitting along the lines of the gills and becoming plicate, bearing a certain number of minute, scattered, flaky, separable, rufescent or whitish scales composed of globose, angular, or elliptical cells, often in chains, 12-30 μ in diameter, some brown and some colourless, not ornamented with crystals of calcium oxalate, the pileus also villose or downy with many colourless hairs, $70-100 \times 5\mu$, enlarged at the apex where minute drops of a clear fluid are exuded under moist conditions. Stipe 2-8 cm. \times 1-2 mm., white, becoming stained with dull yellow, equal, smooth, hollow. Gills grey, then black, at first attached to the stem by the margin for its entire length, then adnexed and finally free, linear, narrow; margin before autodigestion begins slightly divided and fimbriate. Flesh white, thin. Spores black in the mass, dark brownish to black under the microscope, elliptical, $9-15 \times 6-9\mu$. Cystidia on the sides of the gills none. Habitat, on horse dung at Kew and Taunton, August and September, 1911, commonly coming up on horse dung in cultures in glass dishes.

The distinguishing characters of this species lie in the foxy-red colour of the very young pileus, the minute reddish or whitish scales which remain on the expanded pileus interspersed with clavate hairs, the finally depressed disc, the deep black spores and the absence of cystidia on the sides of the gills. The pileus, when expanded, reminds one of that of *Coprinus plicatilis*. Sometimes very minute or dwarf fruit-bodies are to be found along with similar dwarfs of *C. lagopus* in crevices in old horse dung masses. The fungus is common on horse dung cultures at Winnipeg.

